spending that is now emergency spending, that isn't called surplus and, therefore, doesn't count against application to the trust funds of Social Security.

Now, while the President's legions are up here in negotiations over in Speaker NEWT GINGRICH's office, the President is still out on the stump accusing Republicans of wanting to spend the surplus. The President has effectively, by Democrat action here on the floor, denied the taxpayers a reasonable tax cut this year. And while there are some necessary moneys to be spent in surplus spending for emergencies—such as disaster-related emergencies, the emergency of the commodity price crises in agriculture—nobody has denied that that wasn't surplus money and that in fact we are spending a little bit of that surplus, a very small amount of that surplus, to address some very real national needs. But no Republican has even tried to suggest that the surplus isn't the surplus until we have spent all of it, or a portion of it, and that what is left over becomes the surplus.

Mr. President, this is a doublespeak of yours that we are somehow, as a Nation, getting used to: Is ''is''? No; the surplus is the surplus. That is the money that remains unappropriated at the end of a fiscal year. That is the money that, collectively, the budget process of Congress, the appropriating process of Congress, says is not needed; it is not necessary to spend that money.

So now we are attempting something uniquely different. Now we are attempting to once again redefine, at least in the eyes of the President and this administration, what a surplus is. I think we will let the American people decide what that is. You see, we know what ''is'' is. And ''is,'' in this case, is the money that the budget process suggests is not appropriated beyond its normal channels, and that we have determined can be upward of $60 billion worth of surplus this year, that the President in his budget message to Congress emphatically said had to be spent on Social Security, and that this Congress, in a very real and bipartisan way, said, yes, it is a good idea and should be done, because most of us agree that we are in a unique time—if not a historically opportune time—in our country, and that is to use our surplus, to use the surplus that was produced by a balanced budget that we worked so hard to accomplish—can be used to make major changes, not only in our tax law and tax policy, but now the unique opportunity to reform Social Security, not only to save it, secure it, and maintain it for those who become the immediate recipients of it, but so that our children and our grandchildren will be investing in a Social Security system that is worth investing in, so that they are not denied real return on their investment—25 cents on the dollar, as will be the case for our grandchildren today if we don't reform Social Security. We want them to get $1.50 or $2 back on their investment, as they should be allowed to do.

So what is ''is,'' Mr. President, and what is surplus doesn't allow your definition. It isn't what is left over when you get through spending on all of the additional social programs that you want to spend it on.

Just a few moments ago, our colleagues on the other side of the aisle held a very interesting press conference. They called it a ''do-nothing Congress.'' They denied that we had spent the money necessary to fund all of the social programs. Mr. President, in 1994 the American people spoke most profoundly when they changed Congress and said they wanted a new agenda, they wanted a balanced budget, they wanted us to reform Social Security, and they wanted the influence and the impact of the Federal Government on our lives and on our pocketbooks lessened. That is exactly what this Congress has been doing. Yet, of course, now that we have accomplished those goals, now that our economy and our lessened Government spent less of the money and our economy generates more money and we have a unique opportunity of surplus, the President now sees that opportunity—sees it or seizes it, I am not sure at this moment.

Let me suggest, Mr. President, that what is is. Surplus is surplus. It isn't what is left over after you get through spending. That is exactly what the President and the White House tried to engage in last night, a whole new definition. We have watched this President try to redefine a lot of things over the last good number of months—from the word ''is,'' now to the word ''surplus.'' Mr. President, surplus is surplus. It is when the Congress works the budget process, and that is concluded in a bipartisan fashion, that we determine what surplus is. So I think it is terribly important that we finalize our work here. Those negotiations are now underway. Yes, some surplus money will be spent in emergency. What is left over at the end will be surplus. But you don't start the game by redefining the fact. That is how we deal with it. That is how we must deal with it. And it is very important that we stay with that.

I am proud of the record of the Republican Congress—a balanced budget, welfare reform—major changes—and new dollars into education, education controlled at the local and State level and not new, grand programs here at the national level. Those are the issues about which we are talking. Those are the issues with which we must deal.

I hope we can conclude those quickly, adjourn this Congress, and be able to announce to the American taxpayer that they can rest assured that our effort is to control Government spending, the size of Government, and the impact it has on their pocketbook.

With those comments, I yield the floor.

MORNING BUSINESS

The PRESIDING OFFICER. Under the previous order, there will now be a period for the transaction of morning business not to extend beyond the hour of 1 p.m. with Senators permitted to speak therein for up to 5 minutes each.

Mr. ROTH addressed the Chair.

The PRESIDING OFFICER. The Senator from Delaware is recognized.

EDUCATION

Mr. ROTH. Mr. President, I rise today to make some comments with respect to the question of the allocation of resources to assist our State and local governments in meeting their challenge in the provision of education for grades K through 12.

First, in this war of words it should not be overlooked that there was no disagreement last year in establishing education as a priority when we enacted the Balanced Budget Act. We entered into an agreement only one year ago with this administration where we indicated that yes, we agree that education is a priority for all. We have honored that commitment.

Under the balanced budget agreement from last year, we agreed to increase spending on education by 15 percent, or $3 billion. We did that.

This year in the budget resolution adopted by the Senate we agreed to increase education spending over the next 5 years by an amount equal to inflation which would result in spending increases of $6.6 billion in budget authority and $4.1 billion in outlays over the next 5 years. Almost all other discretionary programs were frozen.

In addition, earlier this year we passed a bill—with bipartisan support—the Parent and Student Savings Account Plus Act to expand the education IRA which we enacted last year as part of the Taxpayer Relief Act of 1997.

Under this provision the annual contribution limit for education IRAs would be increased from $500 under current law to $2,000 and expand the use of the proceeds from these accounts for elementary and secondary education expenses.

Education expenses, it is important to note, under the provisions of the bill were broadly defined to include after school-programs, expenses for special needs children, computers, tutoring, uniforms—in sum, virtually any expense associated with improving the totality of a child's education.

The benefits of this provision were large for a very small cost, and I would note most importantly, with no Federal interference. Mr. President, this one provision was anticipated to generate $5 billion for education over a 5-year period and $10 billion over a 10-year period.

It was thought that 14 million families would utilize the savings benefit and 20 million school children would benefit. All at minimal cost and interference. The administration vetoed this good and important bill.

As I see it where we are today is not in disagreement over the importance of education or the investment in education, but rather a very different philosophical approach in the best way to provide assistance. As a staunch believer in State and local control of education it is my firm belief that the assistance we provide to our State and local educational agencies must be given with the maximum amount of flexibility.

Time and time again, the evidence has shown that a one size fits all directive from Washington is not the tonic to cure any ills within our educational system. I therefore believe the administration's insistence on their school construction and class room size reduction initiative is wrong, and actually may be harmful.

A policy briefing issued in June of this year by the Progressive Policy Institute states it best: ''It makes little sense to dictate in across the board class-size reduction policy from Washington. A national policy can only expect average gains, which appear to be very small at great expense.''

Mr. President, I ask unanimous consent that the full text of the policy briefing ''Improving Student Achievement—Is Reducing Class Size the Answer?'' be printed at the conclusion of my remarks.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. ROTH. Mr. President, an additional problem with inflexible mandates from Washington is that it directs resources from the State and local level to areas which a State or local school board might not think is the best use of resources.

Some schools or districts may wish to have smaller class sizes or devote resources to capital projects, others may feel that their school reform efforts can best be served by adding computers, newer textbooks, teacher training, or after school programs or other ideas. This is where I think directives become harmful.

We do not have the solutions in Washington, We must let our State and local educational agencies, parents, and teachers, have the freedom to put their resources where they feel they will do the most good for the benefit of our children. An editorial from the News Journal from my State entitled ''Misguided Mandate: Micromanagement by Legislators Is Mockery of Real School Reform'' is illustrative of this point, though they were editorializing on an action taken by the State legislature in Delaware.

I ask unanimous consent that the editorial be printed in full at the conclusion of my remarks.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. ROTH. Mr. President, in conclusion, Mr. President, I would say that I am disappointed in the rhetorical excess surrounding the issue of educational excellence.

Our focus should not be on inputs and micromanagement, but on how we can best deliver assistance which will result in positive outcomes reflected by improved student achievement. I suggest that the solution to this problem rests in our communities, with those closest to the problems at hand.

EXHIBIT 1

Editor's Note: Silver bullet ideas for school reform come and go, usually warranting little more than passing attention. However, one idea seems to be taking hold among many camps: class-size reduction. In light of the attention and support this idea has received, the Progressive Policy Institute asked University of Rochester's Eric Hanushek—a renowned education scholar—to review the evidence on the impact of class-size reduction policies. This is his analysis.

IMPROVING STUDENT ACHIEVEMENT—IS REDUCING CLASS SIZE THE ANSWER?

(By Eric A. Hanushek)

Growing numbers of Americans are dissatisfied with our nation's schools and are demanding reform. Recently, results from an international study showed U.S. students trailing the world in twelfth grade math and science. Faced with the daunting task of reforming education, politicians in both parties, including President Clinton, are seizing on a cure-all that appeals to interest groups and enjoys public support: reducing class size.

This is by no means a new idea; teachers' unions have fought for smaller classes for decades.

All other things being equal, smaller classes are preferable to larger ones because teachers can give students more individual attention. However, all things are seldom equal, and other factors, such as the quality of the teacher, have a much more decisive impact on student achievement. Moreover, the huge expense of class-size reduction may impede the ability of schools to make other important investments in quality. Here lies the fundamental question: What effect do broad policies of class-size reduction have on overall student achievement levels?

Supporters of broad class-size reductions generally point to a few studies or a few experiences that suggest improved performance with smaller classes and then rely on the ''obviousness'' of the proposed policies to carry the day. To be sure, there are U.S. classrooms that are overcrowded. But not every school ranks reducing class size as the highest priority. Some schools may prefer to invest in smaller classes, but others might opt for reading tutors, after-school programs, computers, higher salaries for teachers, or increased professional development. In fact, a thorough review of the scientific evidence shows a startling finding; class-size reduction may be one of the least effective educational investments.

Historical and international evidence also shows that a national policy to reduce class size could displace more productive investments in schooling. The United States has already significantly reduced class sizes over the past 40 years and student performance has remained stagnant, at best. The overall pupil-teacher ratio fell by 35 percent from 1950–95 (from about 27-to-1 to 17-to-1).[1] Aggregate student performance has shown no improvement over this period. Similarly, these changes have done nothing to boost our standing on international achievement tests.

Federal policy should aim to improve teacher quality, not quantity. Rather than reducing class size, a better use of federal money would be to encourage states to boost teacher quality by developing meaningful teacher tests and alternative certification programs. Better yet, federal funds could be used to encourage stronger performance incentives in our schools.

THE BIPARTISAN RUSH TO REDUCE CLASS SIZES

The widespread belief that lowering class size immediately improves education has been echoed by politicians in both parties during this election year. About 20 governors are either proposing or actively considering class-size reduction initiatives. These states are following on the heels of California, which reduced K–3 class sizes under Republican Governor Pete Wilson after the state generated a revenue windfall in 1996. GOP proposals both in Congress and in many states to shift education dollars from ''administration'' to ''classrooms'' are also often promoted as enabling school districts to reduce class sizes.

Its status as the hardy perennial of teachers' union proposals has further made class-size reduction popular among many Democratic politicians. But this tendency was given a powerful new impetus this year when President Clinton—previously identified with such performance-oriented reforms as charter schools, high standards, and national tests—made hiring more teachers to reduce class sizes in early education a major feature of his State of the Union Address.

THE CLINTON-PROPOSAL

The President proposed to spend $12 billion in federal funds over seven years to reduce class sizes in grades 1–3. These initiatives are designed to help bring classes in the early grades down to 18 students per class, an undertaking estimated to require 100,000 additional teachers.

Federal funding for class-size reduction would be distributed to states on the basis of the Title I formula. Within the state, each high-poverty school district would receive the same share of these funds as it received under ''Title I, and the remaining funds would be distributed within the state based on class size. Participating school districts would be required to match federal funds, on a sliding scale raning from 10 percent to 50 percent.

The initiative also emphasizes teacher certification requirements, an important concern described below. Its approach, however, overlooks the systemic defects of our current certification practices and ignores a critical aspect of teacher quality; recruitment.

More importantly, the President's initiative represents a detour from past initiatives to promote educational results rather than just education spending. The classsize reduction initiative uniquely promotes new educational ''inputs'' (i.e., money) without a corresponding commitment to educational ''outputs'' (i.e., results). All these shortcomings might be overcome if it were truly clear that reducing class sizes in and of itself improves education. Unfortunately, the evidence says otherwise.

THE EVIDENCE ON CLASS SIZE[2]

A wide range of perspective can be taken in attempting to pinpoint the effectiveness of reduced class sizes. No matter what the source of evidence, the answer about effectiveness is the same: broad policies of class-size reduction are very expensive and have little effect on student achievement.

1. The United States has extensive experience with class-size reduction and it has not worked. Between 1950–95, pupil-teacher ratios fell by 35 percent, from about 27-to-1 to about 17-to-1 overall. These reductions have been an important component of the dramatic increases in school spending that have occurred over this period. Table 1 shows the pattern of pupil-teacher ratios, teacher attributes, and real spending per pupil since 1960. The one-third fall in pupil-teacher ratios is a significant contributor to the near tripling in real spending per student in average daily attendance (ADA). (The table further shows that other teacher attributes—i.e., advanced degrees and experience—also grew significantly.)

TABLE 1.—PUBLIC SCHOOL RESOURCES IN THE UNITED STATES, 1961–91

Resource	1960–61	1965–66	1970–71	1975–76	1980–81	1985–86	1990–91
Pupil-Teacher Ratio	25.6	24.1	22.3	20.2	18.8	17.7	17.3
Percent Teachers with Master's Degree	23.1	23.2	27.1	37.1	49.3	50.7	52.6
Median Years Teacher Experience	11	8	8	8	12	15	15
Current Expenditure/ADA (1992–93 $'s)	$1,903	$2,402	$3,269	$3,864	$4,116	$4,919	$5,582

While we lack information about student achievement for this entire period, the information that we have from 1970 for the National Assessment of Educational Progress (NAEP) indicates that our 17-year-olds were performing roughly the same in 1996 as in 1970. There are some differences by subject area. For science, the average scale score of 17-year-olds falls 9 points between 1969–96. For math, 17-year-olds improve 3 points between 1973–96. For reading, they improve 2 points between 1971–96. Writing performance, which is only available since 1984, shows a fall of 7 points, by 1996. Only the fall in science (and in writing since 1984) is a statistically significant difference. There have been improvements at earlier ages, but they are not maintained and are not reflected in the skills that students take to college and to the job market. The overall picture is one of stagnant performance.

One common explanation for why the lower pupil-teacher ratio hasn't resulted in increased overall performance is that more students are now designated as special education students, whose classes are much smaller than regular ones. About 12.5 percent of students are now identified as having disabilities covered under special education legislation (up 8 percent at the introduction of programs in the late 1970s). Indeed, the federal and state mandates for the education of handicapped students have placed significant requirements on hiring staff and providing extensive services. On average, these students cost somewhat more than twice that of those undergoing regular instruction. While these programs could account for as much as a *COM041*third of the increased intensity of teachers over the 1980s, substantial reductions in class size have been directed at regular class room instruction as well.

In sum, the proposals to reduce class sizes are nothing new. We have been pursuing these policies for decades. The aggregate evidence shows no improvements in student performance that can be related to the overall pupil-teacher ratio reductions.

2. International comparisons suggest no relationship between pupil-teacher ratios and student performance. The recent results measuring the performance of U.S. students on international math and science examinations have sobered many. Our high school seniors performed near the bottom of the rankings of the 21 nations participating in the Third International Mathematics and Science Study (TIMSS). This showing has nothing to do with more selective students taking the tests in other countries—our best students performed badly.

At the same time, the dramatic differences in pupil-teacher ratios and in class sizes across the countries are unrelated to measures of mathematics and science achievement. Of course there are many differences across countries that are difficult to adjust for in any analysis, but if smaller classes were strongly related to high student achievement, then one would expect U.S. class sizes to be much larger than those in other countries. In fact, just the opposite is true. Asian countries that routinely outperform the U.S. generally have much larger class sizes. Ironically, the international differences suggest that there is a slight positive relationship between pupil-teacher ratios and student achievement.

3. Extensive econometric investigation shows no relationship between class size and student performance. Over the past three decades, there has been significant research in deciphering what factors affect student achievement. This work, employing sophisticated econometric techniques, provides considerable evidence about the effects of class size on performance.

These extensive statistical investigations show almost as many positive as negative estimates of the effects of reducing class size. Table 2 summarizes the 277 separate published estimates of the effect of pupil-teacher ratios on student achievement. Only 15 percent give much confidence (i.e., are statistically significant) that there is the expected improvement from reducing class sizes. The bulk (85 percent) either suggest that achievement worsens (13 percent) or gives little confidence that there is any effect at all.

TABLE 2.—PERCENTAGE DISTRIBUTION OF ESTIMATED INFLUENCE OF TEACHER-PUPIL ON STUDENT PERFORMANCE, BY LEVEL OF SCHOOLING

School level	Number of estimates	Statistically significant (in percent)—		Statistically insignificant (in percent)—		
		Positive	Negative	Positive	Negative	Unknown sign
All Schools	277	15	13	27	25	20
Elementary Schools	136	13	20	25	20	23
Secondary Schools	141	17	7	28	31	17

Because of the controversial nature of these conclusions, they have been carefully scrutinized—and the policy conclusions remain unaffected. The subsequent discussions have clarified one important aspect of these analyses. The existing studies do show that sometimes variations in class size have significant influences on performance. The difficulty, when thought of in terms of making policy from Washington or from State capitals, is that nobody has been able to identify the overall circumstances that lead to beneficial effects. This finding has important policy implications that are discussed below.

These studies are important because they provide detailed views of differences across classrooms—views that separate the influence of schools from that of family, peers, and other factors. As a group, they cover the influence of class size on a variety of student outcomes, on performance at different grades, and on achievement in different kinds of schools and different areas of the country. In sum, they provide broad and solid evidence.

4. Project STAR in Tennessee does not support overall reductions in class size except perhaps at kindergarten. Much of the current enthusiasm for reductions in class size is based on the results of a random-assignment experimental program in the State of Tennessee in the mid-1980s. The common reference to this program, Project STAR, is an assertion that the positive results justify a variety of overall reductions in class size. This study is the primary reference in the Clinton proposal as well as Governor Pete Wilson's dramatic class-size reductions in California in 1996.

The study is conceptually simple, even if some questions about its actual implementation remain. Students and teachers in the STAR experiment were randomly assigned to small classes (13–17) students) or large classes (22–25) students) with or without aides. Each participating school had one of each type of class. Students were kept in these small or large classes from kindergarten through third grade, and their achievement was measured at the end of each year.

The STAR evidence showed that the gains made were mainly in kindergarten. The STAR data are summarized by Figures 1 and 2. (Graphs were not reproducible in the RECORD.) At the end of kindergarten, children in small classes score better than those in large classes. They then maintain this differential for the next three years.

If smaller classes were valuable in each grade, the achievement gap would widen. It does not. In fact, the gap remains essentially unchanged through the sixth grade, even though the experimental students from the small classes return to larger classes-for the fourth through sixth grades. The inescapable conclusion is that the smaller classes at best matter in kindergarten and perhaps first grade. The data do not suggest that improvements will result from class-size reductions at later grades.

The STAR data suggest that perhaps achievement would improve if kindergarten classes were moved to sizes considerably below today's average. In addition, the effects were greater fro minority students during the first two years. The President's plan gives greater assistance to Title I schools and targets the early grades, but not kindergarten.

Nonetheless, the STAR evidence pertains to a one-third reduction in class sizes, a reduction approximately equal to the overall decline in the pupil-teacher ratio between 1950 and today. As we have seen, that reduction has not led to overall improvement in student achievement.

INTERPRETING THE EVIDENCE ON CLASS SIZE

None of this says that smaller classes never matter. The class size evidence refers to the normal ranges observed in schools—roughly between 15 and 40 studens per class. A class of 100 would likely produce different effects than a class of five, but such a comparison is irrelevant for purposes of the

broad policies currently being considered. Indeed, the micro-evidence, which shows instances where differences in pupil-teacher ratios appear important, suggests just the opposite. All things being equal, teachers are probably more effective with fewer students because they can devote more attention to each child. But all things are not equal. Existing teachers may well not adjust their classroom behavior with fewer children in the classroom, and new teachers hired to staff the additional smaller classes may not be as good as existing teachers. There may be situations—of specific teachers, specific groups of students, and specific subject matters—where the huge expense of smaller classes may be very beneficial for student achievement. At the same time, there are other situation where a large scale class-size reduction policy could take away from other education priorities and result in stagnant or worse student achievement.

The complexity of the situation is that we do not know how to describe a prior situation where reduced class size will be beneficial. It makes little sense to dictate an across-the-board class-size reduction policy from Washington. A national policy can only expect average gains, which appear to be very small, at a great expense.

It is also important to remember that bad implementation can actually worsen achievement. When California implemented its large-scale class reduction last year, the state scrambled to hire thousands of new teachers; 31 percent of Claifornia's new teachers are working with only emergency credentials, with a disproportionate number working in urban districts. Due to lack of space, some schools have resorted to placing two teachers in a single classroom with forty students.[3]

Much of the case for reduced class size rests on ''common-sense'' arguments. With fewer students, teachers can devote more attention to each child and can tailor the material to the individual child's needs. But consider, for example, a movement from class size of 26 to class sizes of 23. This represents an increase in teacher costs alone of over ten percent. It is relevant to ask whether teachers would in fact notice such a change and alter their approach. The observational information from Project STAR suggested no noticeable changes in typical teacher behavior from the much larger changes in the experiment.

The small classes in California have 20 students in them—about the size of the large classes in STAR. No evidence from STAR relates to the likely effects of such a policy change. Indeed, the STAR study was based on previous research which suggested that a class size of 15 or fewer would be needed to make a significant improvement in classroom performance. The Clinton Administration proposals point to class sizes of 18, instead of the 20 in California, but they still do not get down to the STAR levels.

The policy issue is not defined exlusively by whether we should expect positive effects from reducing class sizes. Even if we were confident of positive effects, the case for general policies to reduce class size would not yet be made. Class-size reduction is one of the most expensive propositions that can be considered. The policy experiment of Project STAR involved increasing the number of classroom teachers by one-third, a policy with massive spending implications if implemented on a widescale basis. In recognition of fiscal realities the expense of such policies puts natural limits on what is feasible, leading many reductions to be in the end rather marginal . Marginal changes, however, are even less likely to lead to underlying changes in the behavior to teachers.

TEACHER QUALITY, NOT QUANTITY

Considerable evidence shows that teacher quality is one of the most important factors in student achievement. Whether or not large-scale reductions in class size help or hurt will depend mostly on whether the new teachers are better or worse than the existing teachers. Unfortunately, class-size reduction proposals usually are not accompanied by plans to recruit qualified teachers, and the current organization of schools and incentives to hire and retain teachers do little to ensure that the teacher force will improve. Reducing class sizes may likely have a negative effect by increasing the quantity of teachers at a time when what we need most is to increase teacher quality.

Furthermore, although there is an overall teacher surplus in the United States, high poverty districts often face teacher shortages. In California, this situation has been exacerbated by the state's class-size reduction policy where wealthier districts have raided teachers from poorer districts.

The Clinton Administration proposal call for states to adopt training and certification procedures that have been evaluated and tested. Simply trying to raise certification standards in the current system is unlikely to raise teacher quality. Indeed, certification as practiced today already deters too many talented individuals from teaching, and teachers are rarely held accountable for student performance. Moreover, some states may actually have to lower certification standards just to attract enough teachers for each classroom. If we are to have a real impact on teaching, we must evaluate actual teaching performance and use such evaluations in school decisions. We cannot rely on requirements for entry, but must switch to using actual performance in the classroom.[4]

SUPERIOR APPROACHES

The states and federal government are in a unique position to initiate programs that promise true improvement in our schools. They are not programs that mandate or push local schools to adopt one-size-fits-all approaches—such as lowering overall class sizes or altering the certification of teachers. Instead they are programs that develop information about improved incentives in schools.

The largest impediment to any constructive change in schools is that nobody in today's schools has much of an incentive to improve student performance.[5] Careers simply are not made on the basis of student outcomes. The flow of resources is not related positively to performance—indeed it is more likely to be perversely related to performance. Let us return to class size proposals for a moment. Given that school incentives do not push toward better student performance or toward conserving on expenditures, it is little wonder that decisions about class size are made on the basis of ''fairness'' and not productivity. After all, would it be fair to some teachers to have to teach large classes or to some students to have less attention in a larger classroom? If schools were more motivated toward performance, the discussion might shift to identifying those situations where changing class sizes would have their largest impact. For example, reducing kindergarten class sizes might be important in communities that lack preschools; communities that face teacher shortages might instead raise teacher salaries in order to improve their applicant pools and recruit more qualified teachers.

The unfortunate fact is, however, that we have little experience with alternative incentive structures. A very productive use of state and federal funds would be to conduct a series of planned interventions that could be used to evaluate improvements. Minimally, instead of funding lowered class sizes everywhere, the states and federal government could team together to mandate more extensive random-assignment trials and evaluation of the benefits of lowered class sizes, à la Tennessee.

More usefully, they could work to develop a series of experiments that investigates alternative incentive schemes—from merit pay to private contracting to wider choice of schools. A new program of trials with altered performance incentives could place an indelible positive stamp on the nation's future by committing to learning about how schools can be improved. Today we do not know enough to develop an effective program of improvement. Nor will continuation of past research programs help, because they must rely upon the existing structure of schools with the existing incentives (or lack of incentives).

The issues of incentives and of devising ways to obtain appropriate information is set out in more detail in Making Schools Work.[6] These are clearly complicated issues that would require considerable change in focus by the federal and state governments—turning from trying to dictate how schools do their jobs to setting up incentives for good performance. Contributors to Making Schools Work also openly admit that there are many gaps in our knowledge and that improving education is more likely if we attack the knowledge problems directly instead of continuing policies that we know do not work.

INVESTING IN SCHOOLS

There are powerful reasons to expand and improve investment in human capital. Educational investments are in fact very important for the U.S. economy, which has been built on a skilled labor force and has capitalized on the presence of skills, making human capital investments very important to the economy. Moreover, many authors show that the labor market value of the increased skills, as measured by schooling level, has increased dramatically in recent years. This valuation demonstrates that the economy continues to need an evermore skilled labor force. Economists have recently spent considerable time and effort trying to understand why some countries grow faster than others, and the majority opinion is that a nation's stock of human capital is an important component of differential growth rates. In addition, Americans have long thought of education as a primary ingredient in providing equality of opportunity to society—as a way of cutting down or breaking intergenerational correlations of income and of trying to provide opportunity to all of society. Taken together, these provide important and relatively uncontroversial reasons for us to continue our attention to education.

Acknowledging the need for investment does not, however, lead to unqualified support for any policies labeled ''investment in our youth'' or ''school improvement.'' Recent policy discussions have been laced with programs that fundamentally involve haphazard and ineffective spending on schools and that offer little hope for gains in achievement. The current set of class size proposals falls into this category. President Clinton should leave class size policy to schools and districts, and remain faithful to his greatest achievement in education policy: redefining the goal of school reform as results, not merely spending.

ENDNOTES

[1] Pupil-teacher ratios differ from class size for a variety of reasons including the provision of specialized instruction (as with special education), the use of teachers in supervisory and administrative roles,

and the contractual classroom obligations of teachers. Nonetheless, even though we have little longitudinal data for class sizes, average class size will tend to move with pupil-teacher ratios.

[2]A more detailed discussion of the evidence along with citations for the relevant work can be found in Eric A. Hanushek, The Evidence on Class Size, Occasional Paper No. 98–1, W. Allen Wallis Institute of Political Economy, University of Rochester, February 1998. The complete text is also available at http://petty.econ.rochester.edu.

[3]Edward Wexler, et al. California's Class-size reduction: Implications for Equity, Practice & Implementation. WestEd and PACE, March 1998.

[4]See Dale Ballou and Stephanie Soler: Addressing the Looming Teacher Crunch: The Issue is Quality. Washington, DC: Progressive Policy Institute, February 1998.

[5]A full discussion of the issues of incentives and of experimentation is found in Eric A. Hanushek with others. Making Schools Work: Improving Performance and Controlling Costs. Washington, DC: Brookings Institution, 1994.

[6]Ibid.

[From the News Journal, Sept. 4, 1998]

EXHIBIT 2

MICROMANAGEMENT BY LEGISLATORS IS MOCKERY OF REAL SCHOOL REFORM

Reducing the size of classes is popular with parents and, in some cases, teachers. It offers politicians a way to make headlines that please constituents.

But most respected academic research suggests that reducing classes by one or two students has virtually no impact on the quality of instruction.

Nonetheless, this year the General Assembly mandated that Delaware's public school classrooms be limited to 22 students. The idea was pushed by Rep. Timothy Boulden, R–Newark, who no doubt thought he was doing the right thing. He wasn't. He was pandering to parents who don't understand the issue any more than he does. Research suggests that a home environment that encourages learning is the most important factor in success in school. But the government can't do much about that.

Next comes teachers. It's no surprise that a highly qualified teacher has enormous impact on students. And that's a factor state government can do something about. But legislators and other reformers have refused to deal with it in any meaningful way this year.

There is discussion about increasing qualifications for teacher certificates, regular recertification thereafter and continuing professional development.

Teachers' salaries also must be part of improving this standard. Delaware pays its teachers too little. We're losing some of the best and brightest to neighboring states. This, too, is something the General Assembly can do something about—but doesn't.

Instead, it micromanages school systems with bills like Rep. Boulden's class-size measure. It's quick, easy, relatively inexpensive and popular. But smaller classes aren't significant unless the numbers go down to 15 or fewer students. That would cost hundreds of millions of dollars (The current 22-student mandate cost $6.5 million.)

Most school districts are having difficulty meeting that mandate as it is, in part because it came well after they had planned the 1998–1999 school year. Many more classrooms are required in some districts, and others have had to shift art, music and physical education. Others might have to dismiss librarians and counselors.

It's ridiculous. The General Assembly does the most harm when it micromanages state agencies. It should set broad goals and high standards, and then give the professionals the tools they need to achieve them.

Mr. ENZI addressed the Chair.

The PRESIDING OFFICER. The Senator from Wyoming.

Mr. ENZI. I ask unanimous consent to be able to speak up to 12 minutes, to be followed by Senator DEWINE for up to 20 minutes.

The PRESIDING OFFICER (Mr. GORTON). Is there objection? Without objection, it is so ordered. The Senator is recognized to speak for up to 12 minutes.

Mr. ENZI. Thank you, Mr. President.

EIA COST ESTIMATES ON GLOBAL WARMING

Mr. ENZI. Mr. President, we have been talking about the budget and the way that the President of the United States wants to spend Social Security—the surplus. I want to talk to you about that in another line—the way that the White House wants to raise your taxes, and the way they are going to do it in November in a very subtle way. I am going to talk to you about jobs—your jobs—and the effort that is underway by the White House to shift your job overseas. The White House has been denying that. I know that the Energy Information Administration confirms it, and how we will not only shift your job overseas, but we are going to charge more for everything that you buy.

Let me explain how this works. The new Energy Information Administration estimate is very important for a couple of reasons. It proves that the White House is using funny numbers on global warming. In my opinion, it also points out that we are spending a lot of time debating the details of a treaty that is fundamentally flawed. I have always said that something not worth doing at all is not worth doing well. The administration has already bought the global warming treaty, and now we are trying to figure out how to pay for it. We are trying to figure out how to make it work. It is as if we decided to sink the mother ship and now we need to figure out the cheapest way to rescue all of the people.

Mr. President, it is easy. Don't sink the ship. Sink the treaty. It is like saying that the *Titanic* is going down and we need to reorganize how the deck chairs are placed.

I came to the floor in July and raised serious doubts about the numbers that were dreamt up by the Council of Economic Advisers. The council chairman, Janet Yellen, has testified twice that Kyoto would cost American families somewhere between $70 and $110 per year. I don't know how you feel about it, but the people in Wyoming think that $70-odd to $110 per year more for Government taxes is a lot. But I want to point out that the independent economists put those costs as high as $2,100 per year per household. That is a pretty good, hefty tax. And it is a $2,000 difference from what the administration is saying that it will amount to.

I have tried to get the real numbers on this before. I have been stonewalled by the White House. Then I finally got some numbers that were rather unintelligible. I asked questions about them. I got a letter from the White House Counsel's Office that said that public disclosure of the real terms would set an unfortunate precedent that could chill the free flow of internal discussions essential to effective executive decisionmaking.

In other words, the White House can't really share the numbers with us because we, the Congress, would have a chilling effect on policy-making? That is our realm. We need to have the data on which to operate. And the White House is the one in charge of providing that data.

We have a credibility gap. We have a credibility gap with the administration.

I think it is interesting to compare the cost estimates from the White House with the cost estimates from the independent Energy Information Administration, part of the administration. The White House says the annual average increase in household energy would be $70 to $110.

I have a little chart. This shows a few of the studies that have been done on global warming. The red line is the administration. You will notice that all of them that have been done are on the very bottom level. This is the one that says it is only going to cost you $70 to $110 a year. The blue line is the Energy Information Administration, part of the administration. This blue line, you will notice, appears at the top of the list. That is what they say it is going to cost you —$335 to $1,740 per year per family.

The White House says gasoline would only go up to $1.31 a gallon. The Energy Information Administration says $1.91 a gallon.

How about fuel oil? That is something our friends in the Northeast worry about. The White House says, ''Don't worry, it will only go up to about $1.17 a gallon.'' The Energy Information Administration says it will go up to $1.90 a gallon. Who do you want to believe? The administration's low numbers or the administration's high numbers? You are the one paying the bill; which one would you trust?

I wanted you to know what kind of assumptions the Council of Economic Advisers used. How did they get things to look so rosy? It turns out they brought the cost down using two tricks. Their own internal report said they had to figure out some way to bring down the cost or it would not be feasible. They already bought the treaty, now they have to figure out why they bought the treaty. They want the American people to think they got a good deal for you.

The two tricks they use are electricity deregulation and emissions trading. That is how they make it seem to cost less, even though I thought we wanted to deregulate electricity to save the people back home money. What we are going to do is deregulate it and use that money to pay for the global warming treaty. I guess now we